AMEND THE ABOVE-IDENTIFIED APPLICATION AS FOLLOWS:

In The Specification:

Page 20, under "EXAMPLE 5", eight lines from the bottom, before "(DDA)", change the first word in the line from "duodecadiamine" to -- dodecadiamine -- .

In The Claims:

Please enter replacement claims 1576, 1590, 1591, 1592, 1593, 1594, 1595, 1597, 1670, 1684, 1685, 1686, 1687, 1688, 1689, 1691, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1953, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 2049, 2064, 2065, 2066, 2067, 2068, 2069 and 2070 as follows:

1576. (Amended) An array comprising a non-porous substrate having surfaces, each surface comprising at least one double-stranded nucleic acid fixed or immobilized to one or more reactive groups or binding sites on said surface, wherein at least one nucleic acid strand or a sequence therefrom comprises one or more non-radioactive chemical labels which comprise a non-radioactive signaling moiety or moieties which are quantifiable or detectable, wherein at least one nucleic acid strand or a sequence therefrom in one of said surfaces is different from at least one other nucleic acid strand or a sequence therefrom in another surface, and wherein said non-porous substrate comprises siliceous matter or polymeric material.

1590. (Amended) The array of claim 1589, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

1591. (Amended) The array of claim 1590, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

1592. (Amended) The array of claim 1590, wherein said amine providing compound is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution, and a combination of any of the foregoing.

1593. (Amended) The array of claim 1590, wherein said amine providing compound comprises polylysine (PPL).

1594. (Amended) The array of claim 1589, wherein said surface treatment agent comprises an epoxy glue or solution.

1595. (Amended) The array of claim 1576, wherein said reactive groups or binding sites comprise one or more amine, polyamine, amino-substituted or amino-derivatized groups thereon.

1597. (Amended) The array of claim 1596, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1670. (Amended) An array comprising a non-porous substrate having surfaces, each surface comprising at least one nucleic acid strand fixed or immobilized to one or more reactive groups or binding sites on said surface, wherein at least one nucleic acid strand or a sequence therefrom in one of said surfaces is different from at least one other nucleic acid strand or a sequence therefrom in another surface, and wherein said non-porous substrate comprises siliceous matter or polymeric material.

1684. (Amended) The array of claim 1683, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

1685. (Amended) The array of claim 1684, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

1686. (Amended) The array of claim 1684, wherein said amine providing compound is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1687. (Amended) The array of claim 1686, wherein said amine providing compound comprises polylysine (PPL).

1688. (Amended) The array of claim 1683, wherein said surface treatment agent comprises an epoxy glue or solution.

1689. (Amended) The array of claim 1670, wherein said reactive groups or binding sites comprise one or more amine, polyamine, amino-substituted or amino-derivatized groups thereon.

1691. (Amended) The array of claim 1690, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1777. (Amended) The system of claim 1776, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

1778. (Amended) The system of claim 1777, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

1779. (Amended) The system of claim 1777, wherein said amine providing compound is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution, and a combination of any of the foregoing.

1780. (Amended) The system of claim 1777, wherein said amine providing compound comprises polylysine (PPL).

1781. (Amended) The system of claim 1776, wherein said surface treatment agent comprises an epoxy glue or solution.

1782. (Amended) The system of claim 1762, wherein said activated surface comprises one or more amine, polyamine, amino-substituted or amino-derivatized groups thereon.

1783. (Amended) The system of claim 1782, wherein said amine, polyamine, amino-substituted or amino-derivatized group or groups result from a treatment of said activated surface with a surface treatment agent.

1784. (Amended) The system of claim 1783, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1874. (Amended) The system of claim 1873, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

1875. (Amended) The system of claim 1874, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

1876. (Amended) The system of claim 1874, wherein said amine providing compound is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1877. (Amended) The system of claim 1874, wherein said amine providing compound comprises polylysine (PPL).

1878. (Amended) The system of claim 1873, wherein said surface treatment agent comprises an epoxy glue or solution.

1879. (Amended) The system of claim 1859, wherein said activated surface comprises one or more amine, polyamine, amino-substituted or amino-derivatized groups thereon.

1880. (Amended) The system of claim 1879, wherein said amine, polyamine, amino-substituted or amino-derivatized group or groups result from a treatment of said activated surface with a surface treatment agent.

1881. (Amended) The system of claim 1880, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

1953. (Amended) A non-porous system which comprises:

a non-porous solid support comprising a surface which comprises one or more amine or polyamine or amino-derivatized or amino-substituted groups thereon; and

at least one double-stranded nucleic acid strand or sequence fixed or immobilized to said solid support surface covalently or non-covalently through said amine or polyamine or amino-derivatized or amino-substituted group or groups, wherein said at least one nucleic acid strand or sequence comprises one or more non-radioactive chemical labels which comprise a non-radioactive signaling moiety or moieties which are quantifiable or detectable.

1968. (Amended) The system of claim 1967, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

1969. (Amended) The system of claim 1968, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

1970. (Amended) The system of claim 1968, wherein said amine providing compound is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution, and a combination of any of the foregoing.

1971. (Amended) The system of claim 1968, wherein said amine providing compound comprises polylysine (PPL).

1972. (Amended) The system of claim 1967, wherein said surface treatment agent comprises an epoxy glue or solution.

1973. (Amended) The system of claim 1953, wherein said amine, polyamine, amino-substituted or amino-derivatized group or groups result from a treatment of said surface with a surface treatment agent.

1974. (Amended) The system of claim 1973, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

2049. (Amended) A non-porous system which comprises:

a non-porous solid support comprising a surface which comprises one or more amine or polyamine or amino-derivatized or amino-substituted groups thereon; and

at least one single-stranded nucleic acid strand or sequence fixed or immobilized to said solid support surface covalently or non-covalently through said amine or polyamine or amino-derivatized or amino-substituted group or groups.

2064. (Amended) The system of claim 2063, wherein said surface treatment agent is selected from the group consisting of an amine providing compound, an epoxy glue or solution and an acid solution.

2065. (Amended) The system of claim 2064, wherein said amine providing compound comprises an amino-substituted hydrophobic polymer.

2066. (Amended) The system of claim 2064, wherein said amine providing compound is selected from the group consisting of duodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

2067. (Amended) The system of claim 2064, wherein said amine providing compound comprises polylysine (PPL).

2068. (Amended) The system of claim 2063, wherein said surface treatment agent comprises an epoxy glue or solution.

2069. (Amended) The system of claim 2049, wherein said amine, polyamine, amino-substituted or amino-derivatized group or groups result from a treatment of said surface with a surface treatment agent.

2070. (Amended) The system of claim 2069, wherein said surface treatment agent is selected from the group consisting of dodecadiamine (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy glue or solution and a combination of any of the foregoing.

Add new claims 2143-2160 as follows:

-- 2143. (NEW) The array of claim 1576, wherein said one or more reactive groups or binding sites have been provided by a coating solution. --

-- 2144. (NEW) The array of claim 1590, wherein said surface treatment agent comprises an acid solution. --

-- 2145. (NEW) The array of claim 2144, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

-- 2146. (NEW) The array of claim 1670, wherein said one or more reactive groups or binding sites have been provided by a coating solution. --

-- 2147. (NEW) The array of claim 1684, wherein said surface treatment agent comprises an acid solution. --

-- 2148. (NEW) The array of claim 2147, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

-- 2149. (NEW) The system of claim 1762, wherein said activated surface has been provided by a coating solution. --

-- 2150. (NEW) The system of claim 1777, wherein said surface treatment agent comprises an acid solution. --

-- 2151. (NEW) The system of claim 2150, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

-- 2152. (NEW) The system of claim 1859, wherein said activated surface has been provided by a coating solution. --

-- 2153. (NEW) The system of claim 1874, wherein said surface treatment agent comprises an acid solution. --

-- 2154. (NEW) The system of claim 2153, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

-- 2155. (NEW) The system of claim 1953, wherein said one or more amine or polyamine or amino-derivatized or amino-substituted groups have been provided by a coating solution. --

-- 2156. (NEW) The system of claim 1968, wherein said surface treatment agent comprises an acid solution. --

-- 2157. (NEW) The system of claim 2156, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

-- 2158. (NEW) The system of claim 2049, wherein said one or more amine or polyamine or amino-derivatized or amino-substituted groups have been provided by a coating solution. --

-- 2159. (NEW) The system of claim 2064, wherein said surface treatment agent comprises an acid solution. --

-- 2160. (NEW) The system of claim 2159, wherein said acid solution exposes a hydroxyl group or hydroxyl groups on said surface. --

* * * * * * *

REMARKS

Reconsideration of this application is respectfully requested.

Claims 1576-1242 were previously pending in this application. Claims 1576, 1590-1595, 1597, 1670, 1684-1689, 1691, 1777-1784, 1874-1881, 1953, 1968-1974, 2049 and 2064-2070 have been amended. New claims 2143-2160 have been added. No claims have been canceled by this paper. Accordingly, claims 1576-2160 as amended and added above are being presented for further prosecution.

Amendment to Specification

An informality has been corrected in the specification (page 20, Example 5) with respect to the spelling of the compound "dodecadiamine." Correction of this compound name has also been carried out in several dependent claims as discussed in the next section below.

Claim Amendments

In a further sincere effort to advance the prosecution of their application, Applicants have amended several of the claims above. In claims 1576 and 1670, which are both independent array claims, Applicants have voluntarily inserted the phrase "one or more reactive groups or binding sites on said surface." Thus, both claims now recite that the nucleic acid is "fixed or immobilized to one or more reactive groups or binding sites on said surface." This change to both claims 1576 and 1670 is believed to better reflect the nature of Applicants' claimed array which comprises a non-porous substrate having surfaces. The now claimed reactive groups or binding sites are obtained through various treatments disclosed and supported by the specification. Such treatments include a number of amine

providing treatments, the application of epoxy glue or solution and the use of an acid solution to expose hydroxyl group(s) on the surface. With respect to the last recited acid solution, support is drawn from Example 1 in the specification, page 15, lines 16-23.

In each of dependent claims 1590, 1684, 1777, 1874, 1968 and 2064, a third Markush member, "an acid solution", has been added. Again, support is found in Example 1 in the specification, page 15, lines 16-23. In other dependent claims, the "amine compound" has been changed to recite "amine providing compound." The affected claims include 1591-1593, 1684-1687, 1777-1780, 1874-1877, 1968-1971 and 2064-2067. In several dependent claims, the phrase "epoxy resin or solution" has been changed to "epoxy glue or solution." The claims thus affected are 1590, 1592, 1594, 1597, 1684, 1686, 1688, 1691, 1777, 1779, 1781, 1784, 1874, 1876, 1878, 1881, 1968, 1970, 1972, 1974, 2064, 2066, 2068 and 2070.

In other claims, minor informalities have been corrected. These include, for example, the mispelling of "dodecadiamine" in each of claims 1592, 1597, 1686, 1691, 1779, 1784, 1876, 1881, 1970, 1974, 2066 and 2070. The mispelling of "derivatized" has also been corrected in claims 1595, 1689, 1782, 1783, 1879, 1880, 1953, 1973, 2049 and 2069.

Finally, in claims 1595 and 1689, the phrase "surface or surfaces" has been substituted by "reactive groups or binding sites" to conform with the amendments to the independent array claims 1576 and 1670.

As required under Simplified Amendment Practice. Replacement paragraphs/sections/claims to be used. 37 CFR 1.121, and as set forth in the Changes to the Patent Rules (37 CFR 1.121 MPEP Bookmark, Volume 1, Issue 3), a marked-up version of the claims amended above is attached as Exhibit 1. This marked-up version is entitled "Marked-Up Version Of Amended Claims."

New Claims

As indicated above, claims 2143-2160 have been added to provide dependent embodiments for Applicants' claimed invention. Claim 2143 depends from claim 1576 and it recites "wherein said one or more reactive groups or binding sites have been provided by a coating solution." Such a coating solution is described in the specification, page 18, the first paragraph under Example 3 ("After rinsing with buffer, glass tubes were coated with 100μl of coating solution [50 percent formamide, 5X SSC, 100 μg salmon sperm DNA 0.2 percent polyvinyl pyrrolidone, 0.1 percent Triton X-100, 0.2 percent BSA and 0.05 percent SDS] at 42°C for 90-120 minutes." In claim 2144, the surface treatment agent of claim 1590 is defined as "an acid solution." According to claim 2145, that acid solution "exposes a hydroxyl group or hydroxyl groups on said surface." Again, the foregoing subject matter is supported by Example 1, page 15, discussed *supra*. Claims 2146-2148 mimic the subject matter of claims 2143-2145 except that the former depend from independent array claim 1670.

The remaining newly added claims are directed to Applicants' system invention. These new claims include 2149-2151. Claim 2149 depends from independent claim 1762 and it recites "wherein said activated surface has been provided by a coating solution." Claim 2150 recites that "said surface treatment agent comprises an acid solution." Further, claim 2151 depends from claim 2150, the former new claim reciting that "said acid solution exposes a hydroxyl group or hydroxyl groups on said surface."

Claims 2152-2154 recites similar subject matter as claims 2149-2151 with respect to the activated surface having been provided by a coating solution (claim 2152), the surface treatment agent comprising an acid solution (claim 2153) and the acid solution exposing a hydroxyl group or hydroxyl groups on the surface

(claim 2154).

Claims 2155-2157 and 2158-2160 are directed to similar dependent subject matter as claims 2149-2151 and 2152-2154 discussed above.

It is believed that the foregoing amendments to the claims and the presentation of new claims 2143-2160 comprise subject matter supported by Applicants' original disclosure. Entry of these amendments and new claims is respectfully requested.

Early and favorable action is respectfully requested.

* * * * * * *

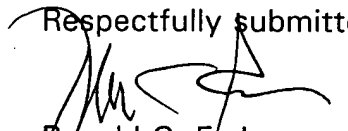
SUMMARY AND CONCLUSIONS

Claims 1576-2160 are presented for further examination. Of these, claims 1576, 1590-1595, 1597, 1670, 1684-1689, 1691, 1777-1783, 1874-1881, 1953, 1968-1974, 2049, 2064 and 2065-2070 have been amended. New claims 2143-2160 have been added and no claims have been canceled by this paper.

No claim fee is believed due for adding new claims 2143-2160, the total number of claims being less than those previously paid. In the event that any other fee or fees are due, however, The Patent and Trademark Office is hereby authorized to charge the amount of any such fee(s) to Deposit Account No. 05-1135, or to credit any overpayment thereto.

If a telephone conversation would further the prosecution of the present application, Applicants' undersigned attorney request that he be contacted at the number provided below.

Respectfully submitted,



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MARKED-UP VERSION OF AMENDED CLAIMS

1576. (Amended) An array comprising a non-porous substrate having surfaces, each surface comprising at least one double-stranded nucleic acid fixed or immobilized [~~thereto~~] **to one or more reactive groups or binding sites on said surface**, wherein at least one nucleic acid strand or a sequence therefrom comprises one or more non-radioactive chemical labels which comprise a non-radioactive signaling moiety or moieties which are quantifiable or detectable, wherein at least one nucleic acid strand or a sequence therefrom in one of said surfaces is different from at least one other nucleic acid strand or a sequence therefrom in another surface, and wherein said non-porous substrate comprises siliceous matter or polymeric material.

1590. (Amended) The array of claim 1589, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution **and an acid solution**.

1591. (Amended) The array of claim 1590, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

1592. (Amended) The array of claim 1590, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution, and a combination of any of the foregoing.

1593. (Amended) The array of claim 1590, wherein said amine **providing** compound comprises polylysine (PPL).

1594. (Amended) The array of claim 1589, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

1595. (Amended) The array of claim 1576, wherein said [~~surface or surfaces~~] **reactive groups or binding sites** comprise one or more amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** groups thereon.

1597. (Amended) The array of claim 1596, wherein said surface treatment agent is selected from the group consisting of [duodecadiamine] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1670. (Amended) An array comprising a non-porous substrate having surfaces, each surface comprising at least one nucleic acid strand fixed or immobilized [~~thereto~~] **to one or more reactive groups or binding sites on said surface**, wherein at least one nucleic acid strand or a sequence therefrom in one of said surfaces is different from at least one other nucleic acid strand or a sequence therefrom in another surface, and wherein said non-porous substrate comprises siliceous matter or polymeric material.

1684. (Amended) The array of claim 1683, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution **and an acid solution**.

1685. (Amended) The array of claim 1684, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

1686. (Amended) The array of claim 1684, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1687. (Amended) The array of claim 1686, wherein said amine **providing** compound comprises polylysine (PPL).

1688. (Amended) The array of claim 1683, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

1689. (Amended) The array of claim 1670, wherein said [~~surface or surfaces~~] **reactive groups or binding sites** comprise one or more amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** groups thereon.

1691. (Amended) The array of claim 1690, wherein said surface treatment agent is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1777. (Amended) The system of claim 1776, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution **and an acid solution**.

1778. (Amended) The system of claim 1777, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

1779. (Amended) The system of claim 1777, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution, and a combination of any of the foregoing.

1780. (Amended) The system of claim 1777, wherein said amine **providing** compound comprises polylysine (PPL).

1781. (Amended) The system of claim 1776, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

1782. (Amended) The system of claim 1762, wherein said activated surface comprises one or more amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** groups thereon.

1783. (Amended) The system of claim 1782, wherein said amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** group or groups result from a treatment of said activated surface with a surface treatment agent.

1784. (Amended) The system of claim 1783, wherein said surface treatment agent is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1874. (Amended) The system of claim 1873, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution **and an acid solution**.

1875. (Amended) The system of claim 1874, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

1876. (Amended) The system of claim 1874, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1877. (Amended) The system of claim 1874, wherein said amine **providing** compound comprises polylysine (PPL).

1878. (Amended) The system of claim 1873, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

1879. (Amended) The system of claim 1859, wherein said activated surface comprises one or more amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** groups thereon.

1880. (Amended) The system of claim 1879, wherein said amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** group or groups result from a treatment of said activated surface with a surface treatment agent.

1881. (Amended) The system of claim 1880, wherein said surface treatment agent is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

1953. (Amended) A non-porous system which comprises:

a non-porous solid support comprising a surface which comprises one or more amine or polyamine or amino-derivatized or amino-substituted groups thereon; and

at least one double-stranded nucleic acid strand or sequence fixed or immobilized to said solid support surface covalently or non-covalently through said amine or polyamine or [~~amino-derivitized~~] **amino-derivatized** or amino-substituted group or groups, wherein said at least one nucleic acid strand or sequence comprises one or more non-radioactive chemical labels which comprise a non-radioactive signaling moiety or moieties which are quantifiable or detectable.

1968. (Amended) The system of claim 1967, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution.

1969. (Amended) The system of claim 1968, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

1970. (Amended) The system of claim 1968, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution, and a combination of any of the foregoing.

1971. (Amended) The system of claim 1968, wherein said amine **providing** compound comprises polylysine (PPL).

1972. (Amended) The system of claim 1967, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

1973. (Amended) The system of claim 1953, wherein said amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** group or groups result from a treatment of said surface with a surface treatment agent.

1974. (Amended) The system of claim 1973, wherein said surface treatment agent is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

2049. (Amended) A non-porous system which comprises:

a non-porous solid support comprising a surface which comprises one or more amine or polyamine or [~~amino-derivitized~~] **amino-derivatized** or amino-substituted groups thereon; and

at least one single-stranded nucleic acid strand or sequence fixed or immobilized to said solid support surface covalently or non-covalently through said amine or polyamine or amino-derivatized or amino-substituted group or groups.

2064. (Amended) The system of claim 2063, wherein said surface treatment agent is selected from the group consisting of an amine **providing** compound, [~~and~~] an epoxy [~~resin~~] **glue** or solution **and an acid solution**.

2065. (Amended) The system of claim 2064, wherein said amine **providing** compound comprises an amino-substituted hydrophobic polymer.

2066. (Amended) The system of claim 2064, wherein said amine **providing** compound is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

2067. (Amended) The system of claim 2064, wherein said amine **providing** compound comprises polylysine (PPL).

2068. (Amended) The system of claim 2063, wherein said surface treatment agent comprises an epoxy [~~resin~~] **glue** or solution.

2069. (Amended) The system of claim 2049, wherein said amine, polyamine, amino-substituted or [~~amino-derivitized~~] **amino-derivatized** group or groups result from a treatment of said surface with a surface treatment agent.

2070. (Amended) The system of claim 2069, wherein said surface treatment agent is selected from the group consisting of [~~duodecadiamine~~] **dodecadiamine** (DDA), polylysine (PPL), γ-aminopropyltriethoxysilane, ammonium acetate, epoxy [~~resin~~] **glue** or solution and a combination of any of the foregoing.

* * * * * * *